frameless in-wall speaker

operation manual

SW-150

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Please complete the following:

Serial Number: _____

Date of Purchase: _____

Dealer Name: _____

Dealer Address: _____

City/State/Zip: _____

Country: _____

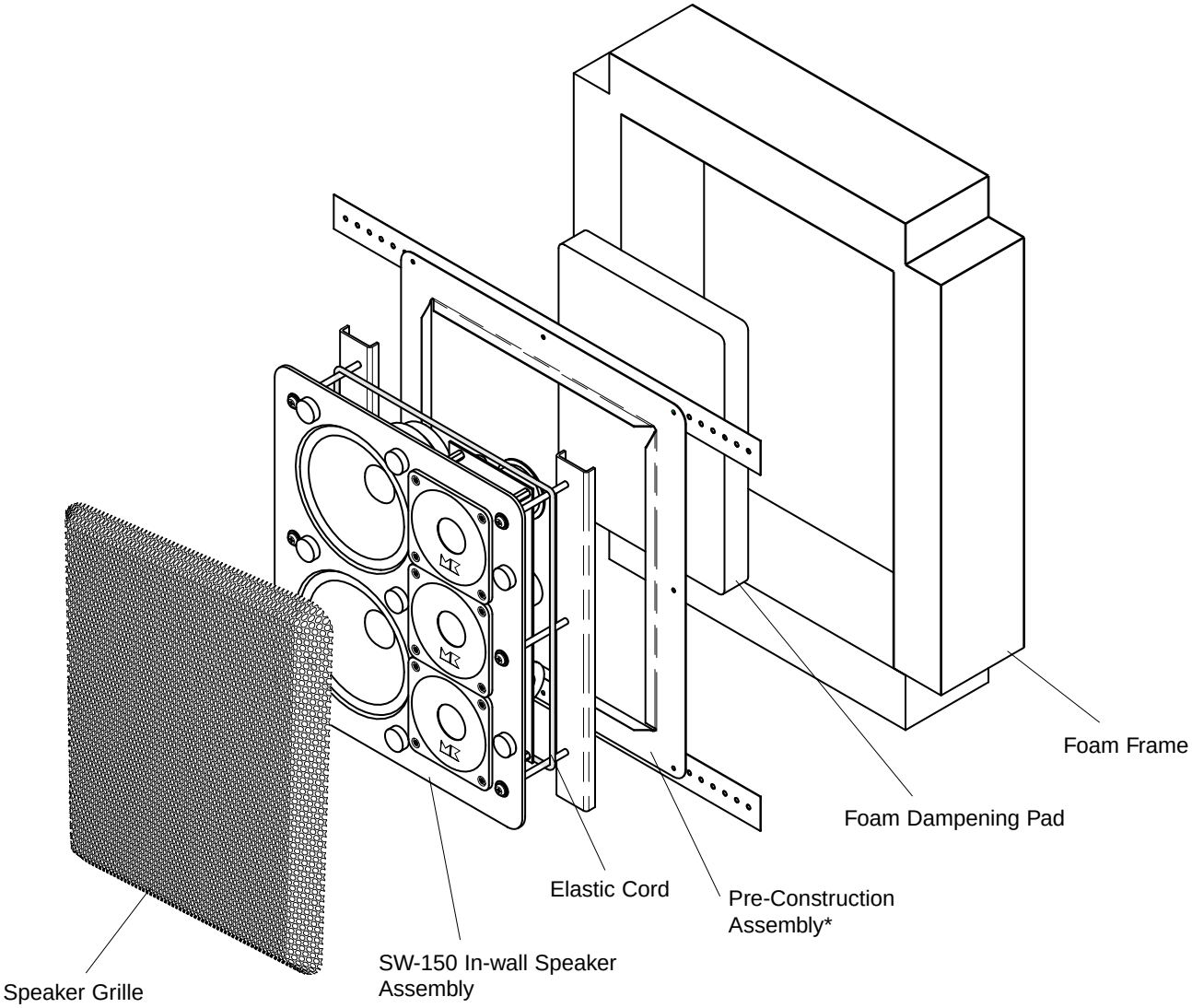
Invoice Number: _____

1. INTRODUCTION

Congratulations! Your new M&K in-wall speaker system will give you years of unmatched enjoyment and excitement while listening to your favorite musical and audio/video sources. We encourage you to read this owner's manual, as there is a great deal of information provided here to help you achieve the best possible performance.

If you have any questions about your in-wall speaker system, please contact your M&K dealer or call the M&K factory directly at (818) 701-7010, from 8:30 AM to 5:00 PM Pacific Time, Monday through Friday. We will be happy to help you with any question. Additional information may also be obtained on our web site: www.mksound.com or you may send us an e-mail to support@mksound.com.

FIGURE 1 - The Major Components of the SW-150



If you are installing your new speaker into existing walls, please see the section on post construction installation (see Section 4, page 5). If you will installing your speakers into walls that have not yet been sheet rocked, follow the Pre-Construction Bracket Instructions that are included with your Pre-Construction Bracket Kit SPRE-150.

*Optional: Available as part number SPRE-150. Not necessary for installation into existing wall.

2. HOOKUP

The Positive (+) lead from your amplifier or receiver should be connected to the RED (+) INPUT terminal, and the Negative (-) lead from your amplifier or receiver should be connected to the BLACK (-) INPUT terminal.

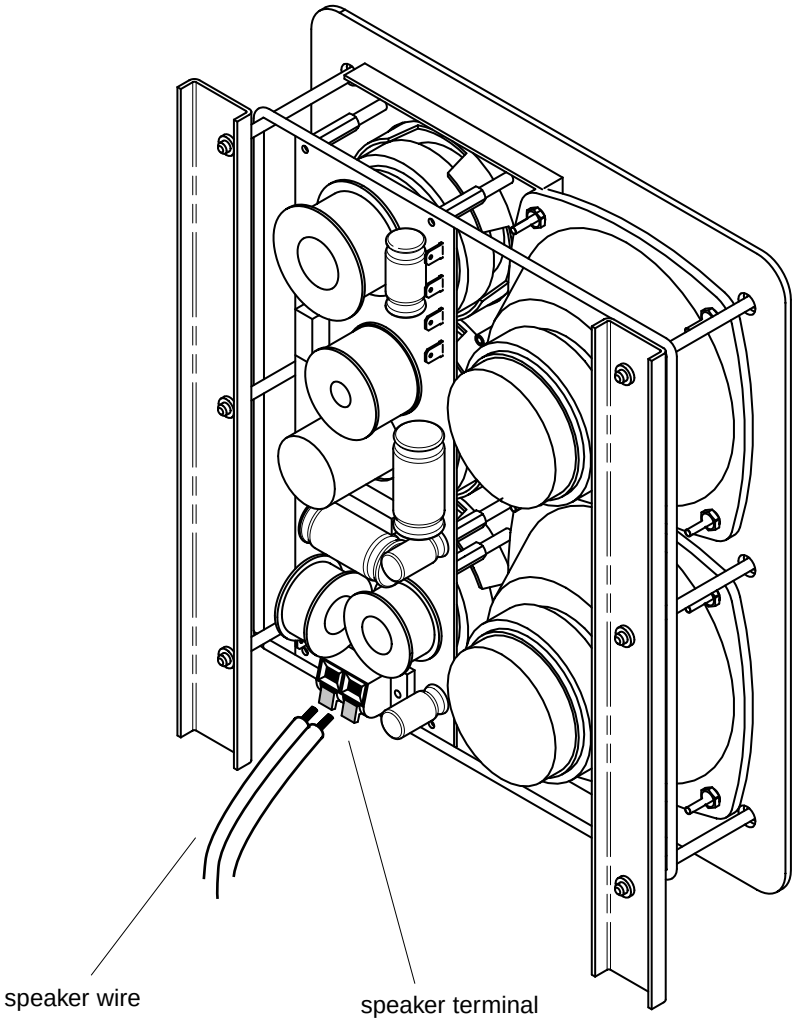
3. APPLICATIONS

Left, Center, and Right Channel Speaker for high performance multichannel speaker systems.

Left Surround, Right Surround, and Back Surround Channel Speakers for high-performance multichannel systems.

Especially well-suited for use as surround speaker in systems using M&K S-150 and S-150 speakers for Left, Right, and Center Channels.

FIGURE 2 - SW-150 Rear View

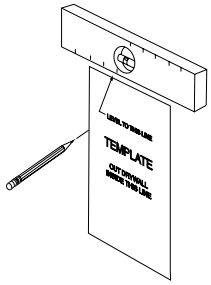


4. POST CONSTRUCTION INSTALLATION

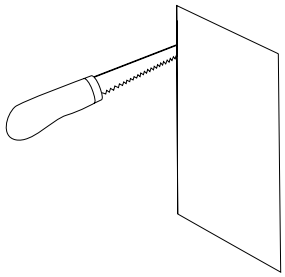
IMPORTANT! - MAKE SURE WALL ELECTRICITY IS TURNED OFF BEFORE STARTING INSTALLATION

1. Mark wall with the template, using a stud finder to maintain a 2" distance from any stud. Make sure that you are clear of any crossbraces in the wall structure.

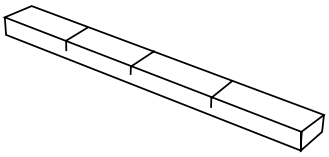
FOR STANDARD INSTALLATION DRYWALL THICKNESS CANNOT EXCEED 1.25 INCHES. FOR THICKER WALLS CALL M&K SOUND.



2. Cut opening precisely with a drywall saw, drywall router, etc. Sand edges and clean debris from installation area.



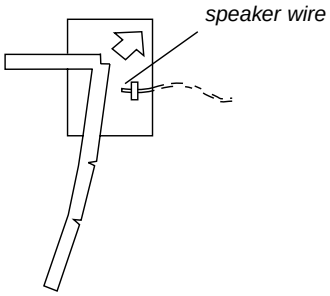
3. Fill in the wall space around the speaker using the included foam strip. The foam strip has 1" deep slits to allow bending it into a 4-sided frame.



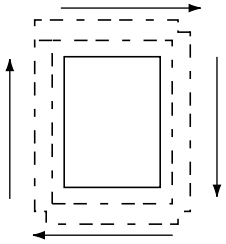
CAUTION: Be careful when bending and handling the strip so that you do not rip it.

4. Tape speaker wire to the back wall so the end is within the opening as shown.

5. Fold the first section of the foam strip and insert the corner through the wall opening.

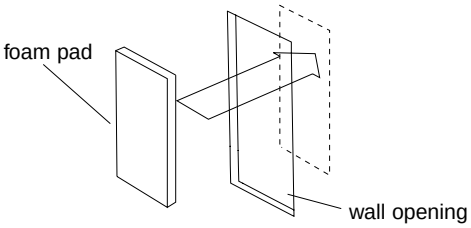


6. Continue folding and inserting the rest of the foam strip into the wall opening until the foam frame is created.



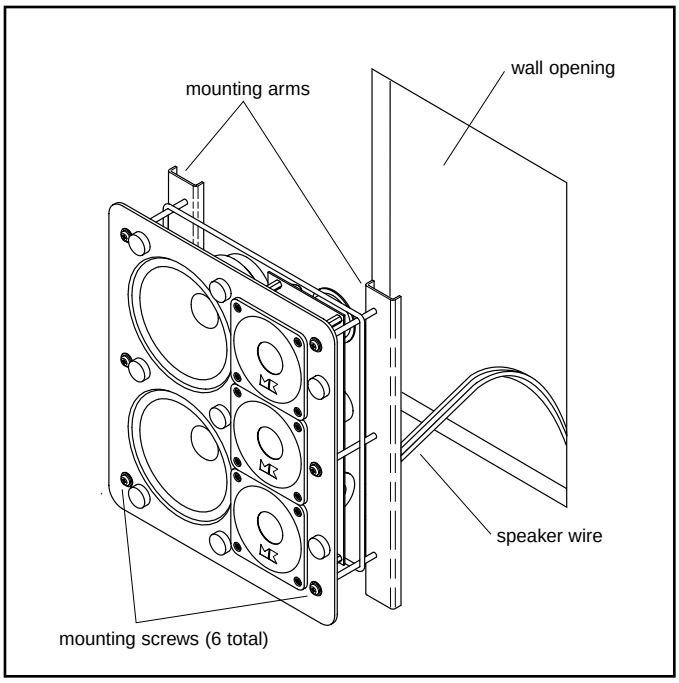
7. Make sure that the frame is centered within the opening.

8. Mount the adhesive backed foam pad in the wall to the left of the cutout. This should place the foam behind the woofers.

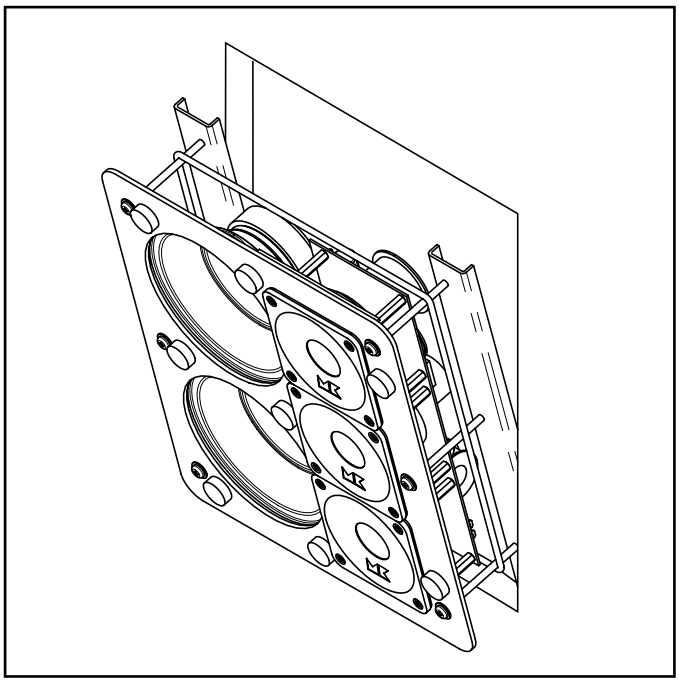


Note: Do not put any other acoustic filler within the wall opening as it can interfere with the speaker mounting.

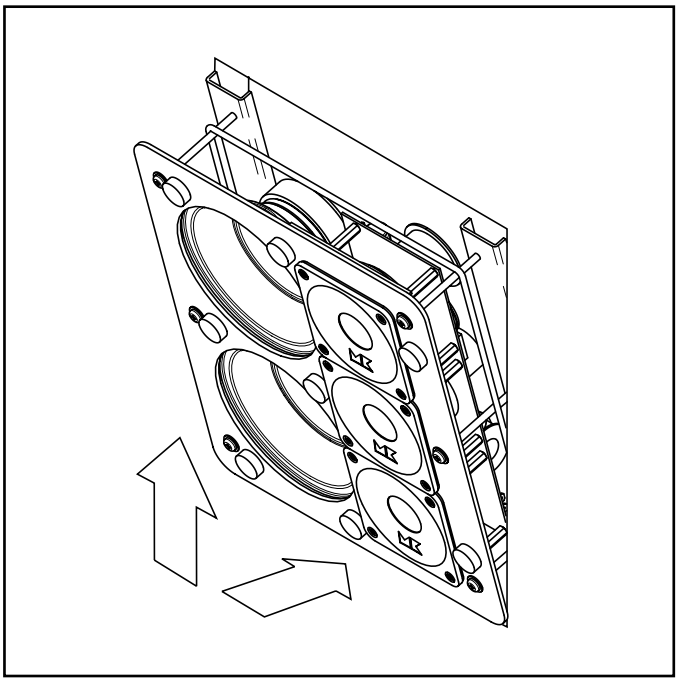
5. Speaker Mounting



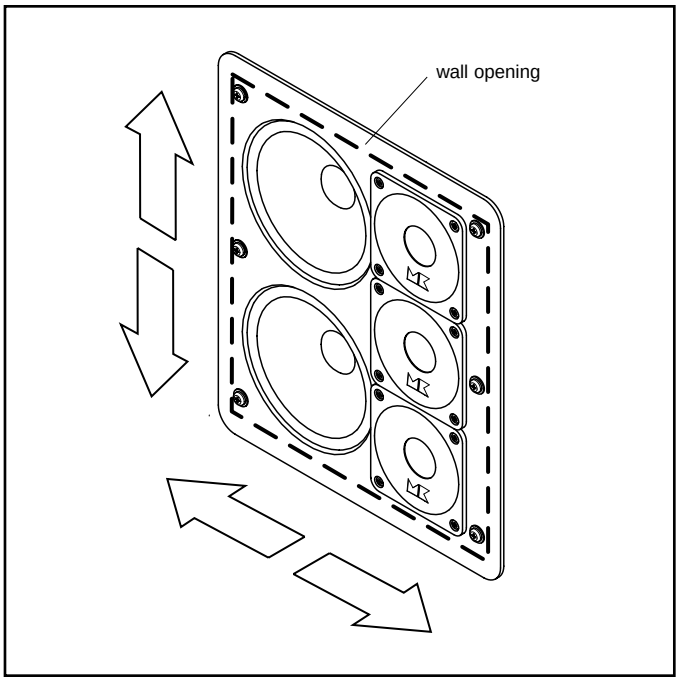
9. Remove packing material and grille from speaker. **Do Not Remove the Elastic Cord!** Make sure that the mounting screws are flush with the front baffle as shown.



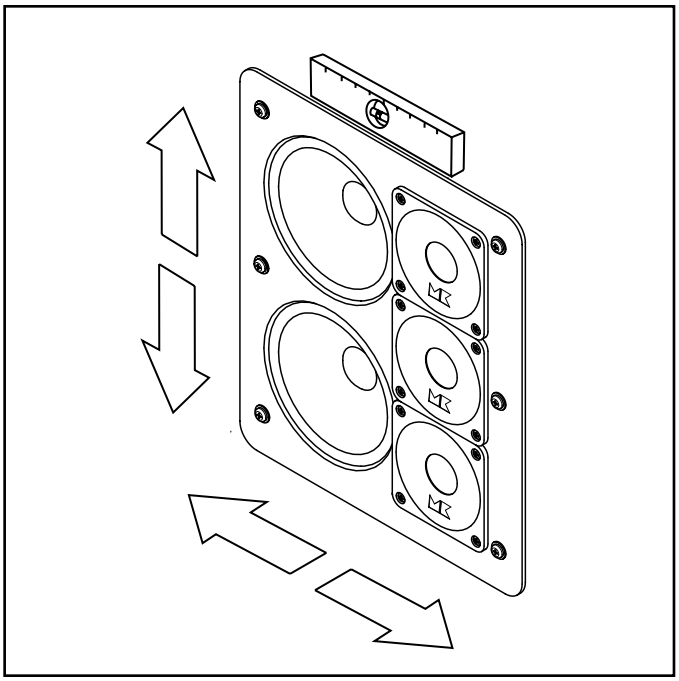
10. Angle the speaker toward the wall and slip the bottom portion of the mounting arms into the wall opening.



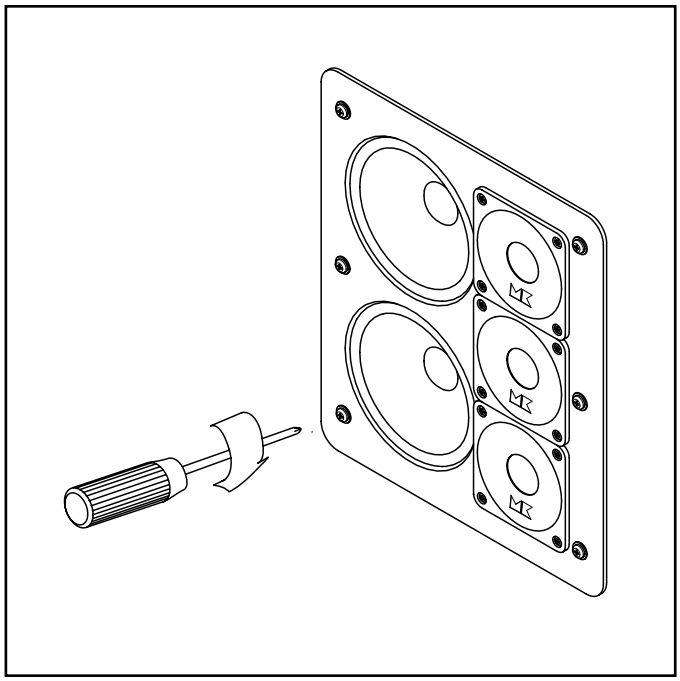
11. Tip the unit vertically and pass the top edge of the mounting arms through the wall opening, allowing the unit to rest on the bottom mounting screws.



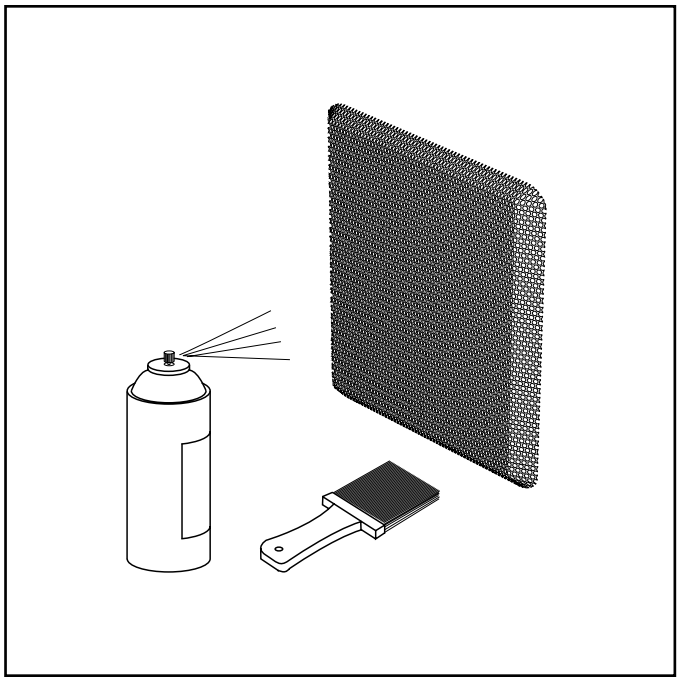
12. Center the speaker within the wall opening.



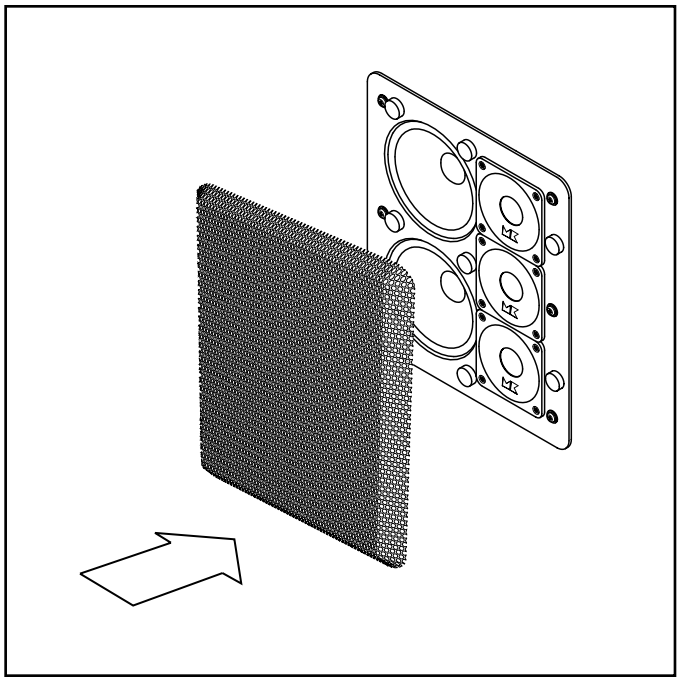
13. Make sure that the baffle is level by checking with a leveling device.



14. Tighten all mounting screws sequentially to light resistance. Continue to tighten screws to an even torque that will secure the baffle to the wall.



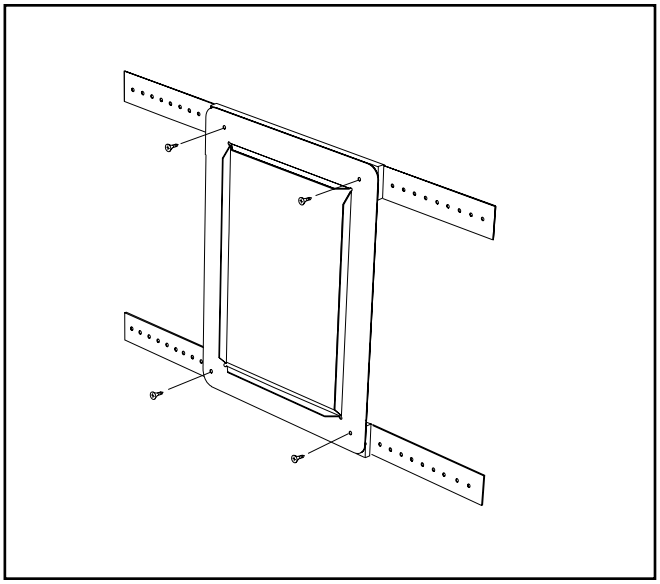
15. The grille ca be painted with Latex paint to match the wall color if desired. Make sure that the paint is thin enough and applied carefully so that it does not clog the openings on the grille.



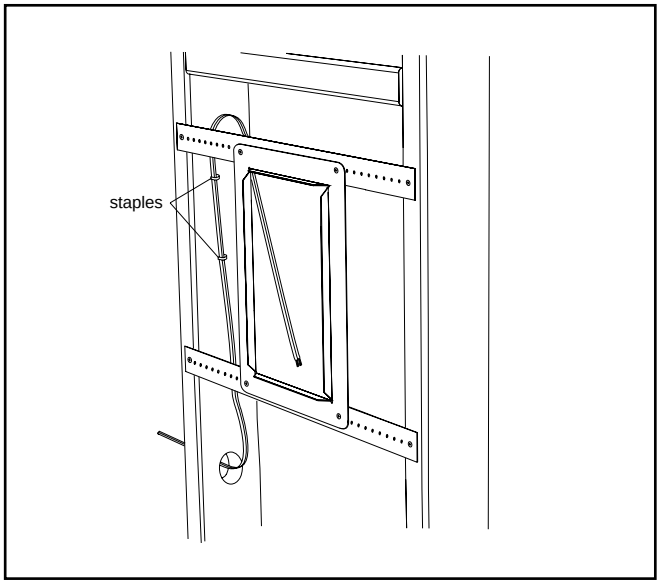
16. Attach the grille. Make sure that the grille is securely mounted on the magnets by tapping on it's surface. Remove the grille and reposition magnets if necessary.

6. Pre-Construction Installation

IMPORTANT! - MAKE SURE WALL ELECTRICITY IS TURNED OFF BEFORE STARTING INSTALLATION



1. Attach the mounting strips to the pre-construction bracket with the included sheet metal screws.



2. Attach the bracket assembly to the wall studs with screws or nails (not included).

3. Run the speaker wire to the location of the bracket. Secure the wire to one of the studs using staples or “U” nails. Make sure that the wire is clear of the opening or it may be damaged when the drywall is cut.

7. SATELLITE/SUBWOOFER PHASING TEST

When using a subwoofer with your SW-150, a phasing test must be performed to insure good bass blending. This test insures optimum sound in the critical bass frequencies where your Subwoofer and Main speakers overlap.

Play a familiar CD or DVD with steady, consistent bass content through your system. Listen carefully to the "mid-bass" region of 75 - 125 Hz. This is the part of the spectrum where electric or string basses and drums predominate. Then reverse the phase of either the subwoofer or BOTH Main speakers.

If your Subwoofer has a PHASE switch on its back panel, move it either from (+) to (—) or vice versa.

If your Subwoofer does not have a PHASE switch, it takes a bit more work. You will have to change the Positive and Negative speaker inputs on the back of BOTH Main speakers.

You can do this at the back of both Main speakers, or at the Subwoofer's TO SPEAKERS terminals, but never at both locations. The lead that was on the Positive (+) terminal should be switched to the Negative (—) terminal, and vice versa. When switching speaker wires, take care to protect your amplifier. Make sure that the wires do not touch each other when you are making the switch. As a safety measure, we suggest that you turn the amplifier off before making the switch.

Now listen to the same musical passage as you did earlier, concentrating on the mid-bass region. If you hear less bass, the original connection (or switch position) was correct. If you hear more bass, the new connection (or switch) is correct.

8. SPEAKER DAMAGE & HOW TO AVOID IT

An important factor to consider with any loudspeaker system is the potential for speaker damage. Even though your M&K Speakers have extremely high power handling ability (especially for Main speakers), they still can be damaged by relatively low powered amplifiers.

While very few M&K Speakers are actually returned for service, the vast majority of those returned are not for manufacturing defects. Instead, they are returned because they have been over driven, almost always because the amplifier or receiver used was driven into clipping distortion. **This damage is considered abuse, and is not covered under warranty.**

This clipping distortion occurs when the demands of the music are greater than the amplifier's available power. It can occur at 20 watts with a small amplifier, or at 400 watts with a large amplifier. When this happens, the amplifier's output waveform (which resembles a smooth arc) is "clipped" off, exhibiting a flat top instead of the arc.

This "clipped" waveform contains multiples of the original amplified frequencies, sometimes at higher levels than the original signal itself. For tweeters, this can be very damaging, as this distortion is well above the audible range (where you are unable to hear it), and where the tweeter is most vulnerable to damage.

When an amplifier "clips", it generates a high level of high frequency energy (much higher than normal program material) which passes through the crossover to the tweeter. This energy can overheat the tweeter in a matter of seconds and destroy it.

When this happens, the sound becomes harsh and grating, and a break-up is often audible in the bass frequencies. It will become uncomfortable to listen to, especially when compared to a slightly lower volume level. When you are listening at high volume levels, be aware of the onset of clipping distortion, and turn the volume down slightly if the sound takes on the character described above.

When tone controls or equalizers are used to boost frequencies, the problem occurs much more rapidly. Even a small boost of low or high frequencies can easily double the power requirement and lead to amplifier clipping at moderate levels. Therefore, you should use your tone controls judiciously, avoiding extreme boosts of the bass and treble controls, especially when you are listening at high volume levels.

The best way to avoid speaker damage is to use common sense. Use moderate boosts of tone controls or equalizers, at the very most. Listen carefully for any harshness and break-up, especially at high volume levels, and turn down the volume when needed. If you cannot get enough volume, you may need to consider a higher powered amplifier. If you have any questions about this, please contact M&K, and we will be happy to discuss it with you.

9. IF YOU NEED SERVICE OR SET-UP ASSISTANCE

Contact your dealer or M&K with a complete description of the problem. Please have the unit's model and serial numbers (found on the back of the cabinet), date of purchase, and your dealer's name. You can call M&K between 8:30 AM and 5:00 PM Pacific Time, Monday through Friday, at (818) 701-7010. Alternatively, an email can be sent to support@mksound.com.

DO NOT RETURN YOUR SPEAKERS TO THE FACTORY FOR SERVICE WITHOUT OBTAINING PRIOR AUTHORIZATION

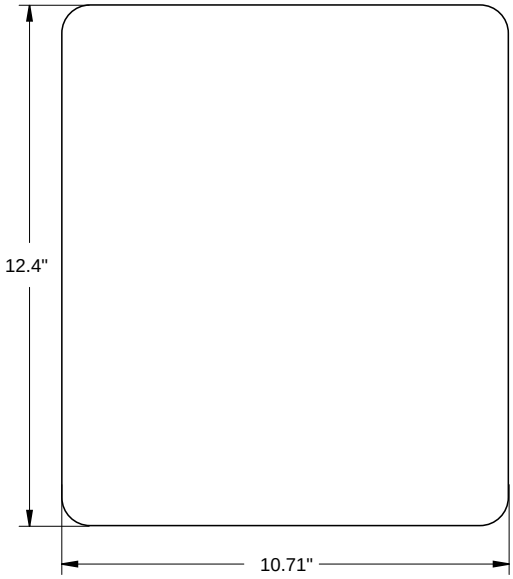
10. M&K 10 YEAR WARRANTY

All M&K Satellite speakers carry a ten year limited parts and labor warranty. This warranty is transferable to new owners up to ten years from the date of original purchase. It does not cover abuse, misuse, repairs by unauthorized service stations, speakers without M&K serial numbers, speakers not sold by authorized M&K dealers, and those damages in shipping or by accident. If you have any questions about the warranty, please contact M&K.

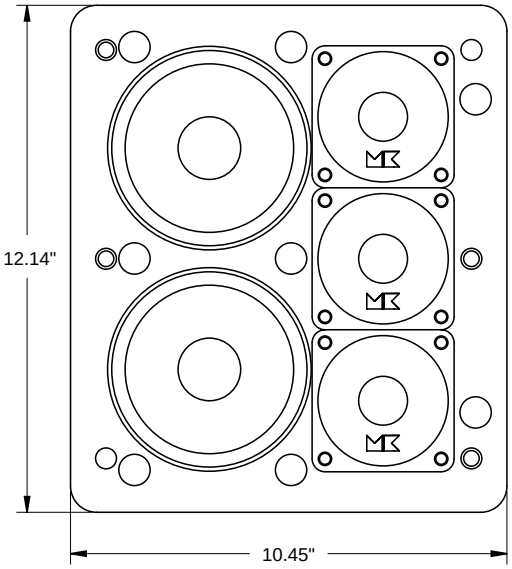
11 SPECIFICATIONS

IMPEDANCE:	4 ohms
MINIMUM POWER:	25 watts RMS
RECOMMENDED POWER:	amplifiers with between 25 and 400 watts RMS
MAXIMUM POWER:	400 watts RMS unclipped peaks
FREQUENCY RESPONSE:	77 Hz - 20 KHz ± 2 dB
SENSITIVITY (2.83 V @ 1m):	92dB
FRONT BAFFLE:	11 gauge steel
GRILLE DIMENSION (H x W x D):	12.40” x 10.71” x 0.39”
BAFFLE DIMENSION (H x W):	12.14” x 10.45”
CUTOUT DIMENSION (H x W):	11.25” x 9.875”
MOUNTING DEPTH:	3.16”

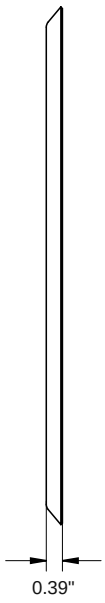
Grille (Front View)



SW-150 Baffle (Front View)



Grille (Side View)



SW-150 (Side View)